ACADEMIS

Create Better Science

Powerful Presentations

- The learning Path of Presenters
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- Less Content is More
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- Feedback Sheet

With contributions by

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Presenting to an unknown audience

- no abbreviations!
- give definitions
- explain basic terms
- get in touch with the audience, e.g. by poll questions "Who in the audience is programming Python? Please raise your hand."
- reinforce the structure of your presentation by giving short introductory/summarizing statements to each section. "In the second part, I will explain random forests." and "Taken together, random forests allow you to quickly 'classify fuzzy input". This helps non-expert listeners to stay on board.

Presenting to a HR audience

- weave in your transferable skills at some point
- show somehow what is your personal connection to the project - this is what makes you unique and memorable
- offer a printed CV - slides are gone too fast
- offer a small but tangible next step in conversation. "I am curious what the typical presentation in your company is about - let's get in touch." instead of "If you would like to book a presentation course, please email me".
- dress up a bit (in Germany we have some room at the top, particularly in IT. Assuming your job involves other things than sitting in front of a screen, being presentable is part of the game.
- make up your mind what your leadership skills are. The reason behind is that there is a general shortage on leadership characters and any potential employer will be evaluated under this aspect. If you have a PhD it is even more imperative, because you are destined to lead others in some way.

Keeping nervousness under control

- being nervous is good
- no coffee (increases your tension) or coke (makes your voice chords sticky) - just water before important presentations
- some light physical exercise right before (aeroplane exercises or outside/bathroom, not on the stage!)
- take you time to 'own' the stage. breathe. look for the friendly face. wait 10-15 sec.

Strong Openings

- See later article

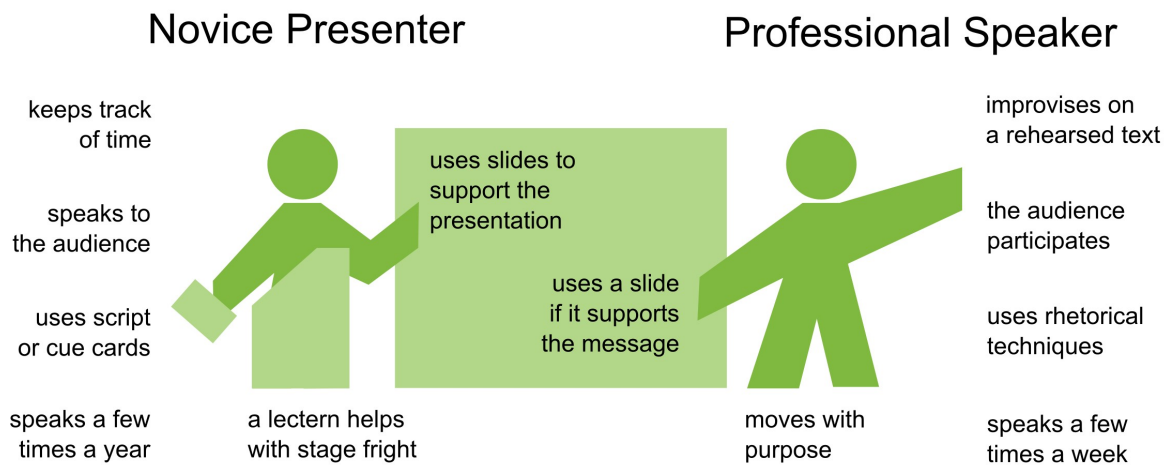
Strong Closing

- Rehearse the last sentence as you would the first
- Summarize the key points of your presentation. Simple but it's half the job.
- Quote
- Question
- Call to action (especially in sales). Tends to be imperative form in the US, in Europe rather a suggestion or simply “You can find out more about X on Y”.
  The nasty thing about a CTA is that you have exactly one shot per talk. So if you say “Visit my web page. Write me an email. Also, I have a book for sale.” your listeners might get confused.
- Final slide with your contact data, URL, key message and / or thank you.
  The purpose of the data is to keep your message visible, the purpose of the thank you is to make it clear that your presentation is over).

The learning Path of Presenters

When I listened to Mark Hunter, the 2009 World Champion in Public Speaking, I was moved. His prized speech *"A Sink Full of Green Tomatoes"* [1] brought me to a point where handkerchiefs were needed. Two days later I had the opportunity to hear the same speech by Mark a second time. I thought to myself: *"Now I know the story, so I won't cry this time."* I was wrong.

To become a world-class speaker certainly is a long way. Even getting halfway there is a long way (and probably sufficient for most of us). But what is it that distinguishes novice presenters from masters? After observing lots of speeches on TED, Google TechTalks, and attending workshops given by Toastmaster Champions [2], I identified six areas by which you can locate yourself on the presenters' learning path.



1. Timing

Finishing on time is key to all presentations. While inexperienced presenters might use a watch or clock to check his pace, professionals rehearse their presentations many times. They spend hours to fine-tune their text, when preparing for contests even to the second. As a result, they become so comfortable with their material that they can improvise freely while keeping the clock in check.

2. Contact with the audience

Many first-time presenters believe that presenting is one-way communication. When you feel more comfortable on the stage you might ask a question or two – rhetorical or real

ones, both result in a reaction. More reactions a speaker can elicit include eye contact, emotions, laughter, language, physical activities, and – hopefully – thinking. There is a lot of communication happening both ways, and it can be turned into a form of art.

3. Notes

Using notes is a good thing. It is disturbing to forget your text and not having it anywhere. Or the fear of forgetting may be worse than a small 'thinking pause' itself. Notes at least give provide you with a backup plan. Practically, loose sheets of paper easily get messed up when you are nervous. A clipboard helps with that. Alternatively, PowerPoint can display notes for your eyes only parallel to slides. With more confidence, you may use cards with key sentences or words instead. Occasionally, you can see even experienced moderators on TV use cue cards. Do professional speakers use notes? Most of the time, they don't.

4. Slides

Covering a presentation from beginning to end with slides is common in scientific presentations. Opinions on the subject differ a lot, and there is controversy [3]. On one hand, using a deck of slides certainly gives a beginner a firm structure that helps him to say what he wanted to say. On the other hand, it is easy to create a bad PowerPoint presentation. Many excellent speakers limit their visual information to a minimal number of pictures or diagrams, and switch to a black screen in between. If the message allows, you also see them using flipcharts, whiteboards, props (items), or their bare hands.

5. The stage

When I came on a stage for the first time, I looked at a big, scary, empty area. I was looking for a safe spot, and the lectern was such a place. A lectern protects the speaker from the audience – and is excellent for hiding notes, handkerchiefs, extra batteries for your light saber (laser pointer), magic rings and whatever you carry in your pockets. The only bad thing is that a lectern hides you as well. Movement and gestures are strong tools to support a presentation. Professional speakers frequently leave that safe haven and expose themselves in exchange for full contact with the audience. It does not mean that they are jumping fervently about the stage. But they are aware that movement conveys a meaning, and strive for a consistent meaning of body, voice and words.

6. Experience

Each speaker is different. The only way to find your best presentation style is to figure out

what works well for you. What you see when you watch master presenters is only the result of a long process, and many, many hours spent in front of an audience. One thing is for sure: talent is only a small portion of it. In other words: *"All the great speakers were bad speakers at first"* (Ralph W. Emerson) [4]. If you want to be good at running, you need to run a lot. If you want to be good at programming, you need to write a lot of programs. If you want to be good at speaking, you need to give a lot of presentations.

There are lots of opportunities where you can practise: Science Slams (**www.scienceslam.de**), Pecha Kucha nights (**www.pecha-kucha.org**), and speaking clubs (**www.toastmasters.org**) have a stage waiting for you.

References

[1] Mark Hunter. **www.markhunter.com.au**

[2] **www.toastmasters.org**

[3] **http://sixminutes.dlugan.com/10-20-30-rule-guy-kawasaki-powerpoint/**

[4] Borrowed from John Zimmer. **www.mannerofspeaking.org**

Recipe for creating a Talk

Designing a presentation without an audience is like writing a love letter starting with "to whomever it may concern" (John Zimmer)

Thirty minutes and your presentation will be over. You will get applause, leave the stage and that's it. So is it worth to put a lot of effort into preparation? Have you ever thought that if you have 20 people watching a lousy presentation that lasts half an hour, it won't be 30 minutes wasted, but a total of 600 minutes - 10 hours. On the other hand a talk performed well is an adventure both for the audience and the speaker. It can make people laugh or make them cry. It can make people remember you, make friends, contacts, and project opportunities. But how can you prepare a great presentation?

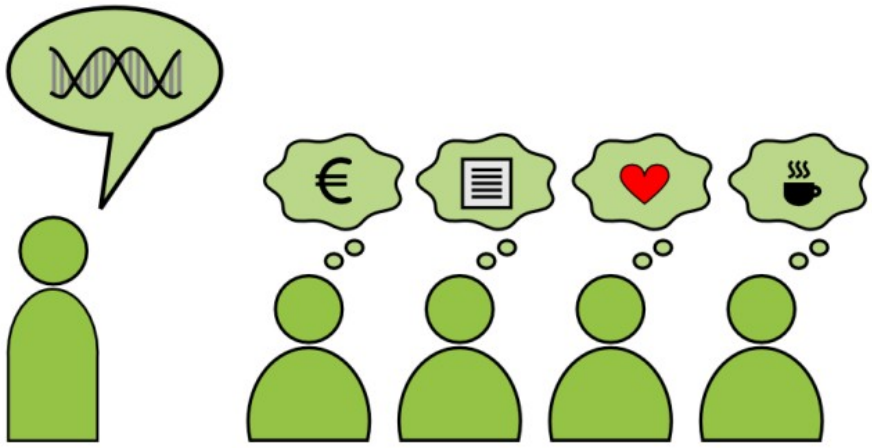
For many people, preparation starts the moment they create a new PowerPoint document. But for excellent talks, preparation starts much earlier. In this text you will find a **step-by-step guide** for preparing a scientific presentation. It allows you to design a presentation in a top-down fashion in nine steps:

The recipe

1. **Why are you going to present?**
   What do you want to achieve? Set a clear goal – also called a **purpose statement** (e.g. you want to inform the audience about something, you want to persuade them to take a particular action, you want to entertain, you want to get an excellent grade, etc.).

2. **Understand the circumstances of your talk.**
   Where and when are you going to speak? How much time do you have? What technical requirements you need to meet (e.g. get a projector or speak with a microphone). Do you need to use a template for your slides? Is your presentation going to be evaluated, and by what criteria?

3. **Familiarize yourself with the subject.**
   Before moving on, you need to know roughly what you will talk about. If you present an article, you need to read it. Is there other homework to be done? Be aware how much time you have to prepare. You don't need to dig very deep at first. You can read more later.



4. **Why should your audience care?**

   Consider who is going to sit in the audience. How many people will be there? What is their background? How much do they already know on the subject? What views/opinions might be predominant? What do they want to hear? The more honest and clear you are about the value to your audience, the bigger the impact.

5. **Summarize your presentation in one sentence.**

   What is the one simple message of your talk? Summarize the contents in five to ten words, and write it down. Does your summary match the purpose statement and does it contain value for the audience? You can build the entire presentation on that summary.

6. **Collect material.**

   Now is a good moment to do more homework: Read more, note essential facts, collect data, numbers, references, images, and diagrams. You can pile up material at first without establishing a timeline or even deciding what to use. Just make sure what you have and what you don't.

7. **Set a structure.**

   Every talk needs an opening, a main part and a closing. Divide the main part into 3-5 main points. Summarize each point in one sentence. Again, check whether each of your main points contributes to the purpose statement and main message.

8. **Create slides.**

   Now your presentation is almost done. The second last thing is to prepare slides. As a scaffolding, create slides with a single sentence each. Review your presentation and make sure they connect well to each other. Each slide should lead to the next. Even if you have great material, if it does not fit the overall goal of the presentation, remove it. A coherent story is better than beautiful slides. Only then, add content to the slides.

9. **Rehearse and check time.**

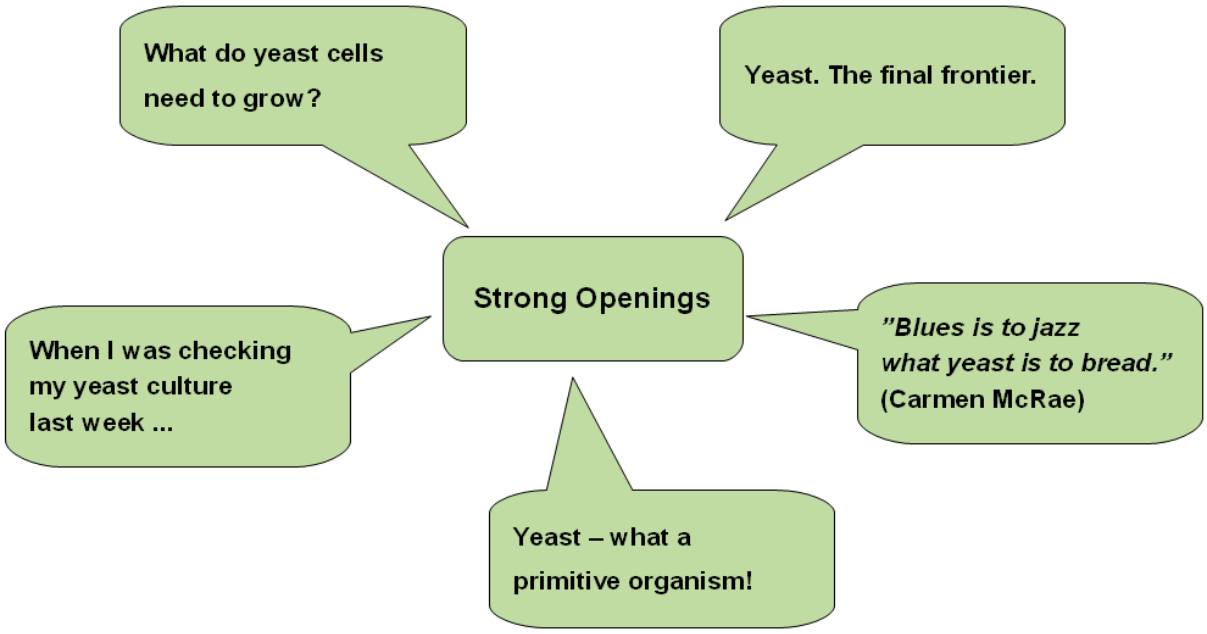
   Rehearse your talk at least once. The main risk is that you need more or less time than you estimate. On one hand, staying in the given time frame means showing respect to both your audience and organizers. On the other hand, knowing how much time you will need means there is one thing less you need to worry about.

In summary, each of these nine steps either increases the value of your talk directly, or gives you more freedom while you talk. Together, they contribute to memorable presentations.

Strong Openings

When I was on my very first conference, I noticed one thing common to many presentations: They all started with the words *"First of all, I would like to thank the organizers…"* It took me 15 years to realize that this is not the best way to start a scientific talk. In fact, professional speakers like Craig Valentine [1] state there are plenty of alternatives to a standard thank-you opening phrase. There is more space for thanks after your opening.

The above opening wastes the most valuable moment of your presentation. The first 30 seconds not only set the climate for your speech, they also determine much of the reaction of your audience. The purpose of the opening is to catch attention in the first sentence. You can build interest, tension, sympathy or simply lighten the mood with a few words.



How to build a strong opening?

There are five openings recommended by professional speakers including Jack Vincent [2] and Florian Mueck [3]:

A quote. A quote gives your audience something to think right away. By referring to an authority, you suggest that you have considered other peoples' opinions (social proof). There are plenty of smart quotes to be found.

A question. Like the quote, a question makes your audience think. It allows for a smooth transition into your topic. Of all openings, this one is probably the easiest to construct.

A single word. A powerful word creates pictures and emotions: Consider what you see upon hearing *"Mahatma Gandhi"*. Do you see a bald man in a white dress with spectacles? Now, try the same with a word your scientific audience is familiar with. For instance, borrow from Star Trek: *"Yeast. The final frontier."*

A story. Telling a brief story gives your audience something they can remember easily. Stories are an engaging packaging for all kinds of insight. Of course, the story needs to be connected to the contents of your talk. A good length for a story opening is between 30 seconds and two minutes.

A polemic statement. Teasing your audience is a strong way to bring their attention to 100%. For instance, the opening *"Cells don't need RNA to make peptides."* seems to question the central dogma of molecular biology (DNA→RNA→protein). However, toxins like α-amanitin are synthesized completely by enzymes. If this comes as a surprise for your audience, the polemic question worked. A polemic statement needs to be fine-tuned to the background knowledge of your audience.

All five openings utilize the first 30 seconds of your talk well. How to move on after that? For instance, you could transition into a brief summary of your talk, describe an experiment right away, or acknowledge your team. A strong opening makes the difference between just having people in the audience and having attentive listeners.

References

[1] Craig Valentine. **www.52speakingtips.com**

[2] Jack Vincent. **www.bravenewsales.com**

[3] Florian Mueck. **www.florianmueck.com**

Less Content is More

Having a clear structure is key to make your presentation easy to understand. A good structure also helps you to present in a relaxed manner instead of rushing through a deck of slides. But how can you start creating a high quality structure? One method propagated by Florian Mueck (**www.thesevenminutestar.com**) is to pick the best from an initial batch of ideas. The basic approach is simple: You write down six ideas for main points of your talk, and then remove the three least relevant ones.

Now, you might object: *"But in my research **all** points are relevant."* You are right about your research. But is the same true when you think about ***presenting*** your research? Taking the prespective of your audience, you will find differences: Given the background of your average audience member, which point will be most interesting to them? Do any of your points fit naturally to the context of the event you are talking at? Is there a point you feel most comfortable with, so that you will tell it in an engaging or entertaining manner? Questions like these may help you to identify what is most relevant to your audience.

Of course, if your six main points are *Introduction, Methods, Results, Discussion, Conclusions* and *Acknowledgements*, you should by no means skip three of them! All these parts are necessary to describe one experiment, and you cannot describe half an experiment. So in the context of the **3 out of 6** technique, a single experiment is atomic. Probably you did more than one experiment, though (if it is exactly one, consider yourself lucky). Which experiments will you choose for presenting? What materials or images will illustrate those experiments best? When you pick some of your findings instead of throwing all of them onto slides, you are doing your audience a big favour.

Your listeners depend above all on clarity, and 1-2-3 is clearer than 1-2-3-4-5-6. Focusing on few aspects makes all the difference between presenting six interesting points and presenting three outstanding ones. Finally, when you don't tell everything right away, the audience may want to hear you speak again.

Preparation Checklist: Is my Presentation really ready?

- [ ] Does the presentation meet formal requirements (proper length, your groups presentation template, papers that are to be referenced etc.)?
- [ ] Does the presentation have a clear message? Can you summarize the presentation in one sentence?
- [ ] Is it possible to distinguish 3-5 main points easily?
- [ ] Do you know the first two sentences by heart?
- [ ] Do you have a summary at the end?
- [ ] Are there acknowledgements?
- [ ] Do you have references to external material on your slides (diagrams, quotes etc.)?
- [ ] Have you rehearsed the presentation at least once and measured time?
- [ ] Do you have the slides as a PDF on an external medium (e.g. USB stick)?
- [ ] Have you checked equipment before (laptop, projector, remote control, the infamous adapter cable to connect a Mac to a projector)?
- [ ] Do you have a plan B in case there is no electricity, you forget the stick with slides, only one person attends etc.?

Feedback Form

Print and distribute the form on the next page at the end of a presentation in your group. Ask your audience for some constructive suggestions. This will help you to move forward on the learning path of presenters.

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Feedback for:

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